

October 1, 2001

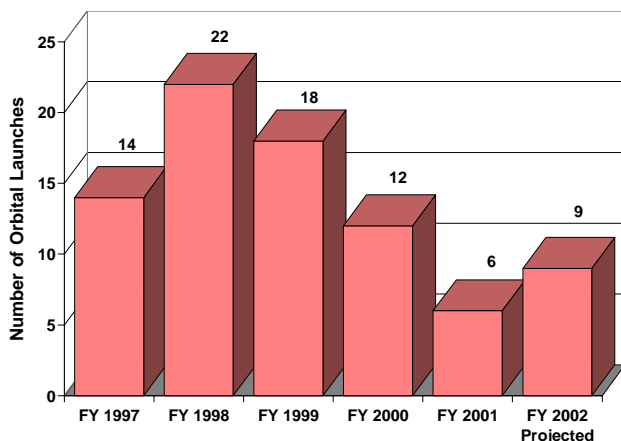
SIX FAA-LICENSED LAUNCHES IN FY 2001

In FY2001, the Federal Aviation Administration's (FAA) Office of the Associate Administrator for Commercial Space Transportation (AST) licensed six launches valued at approximately \$385 million. These launches included:

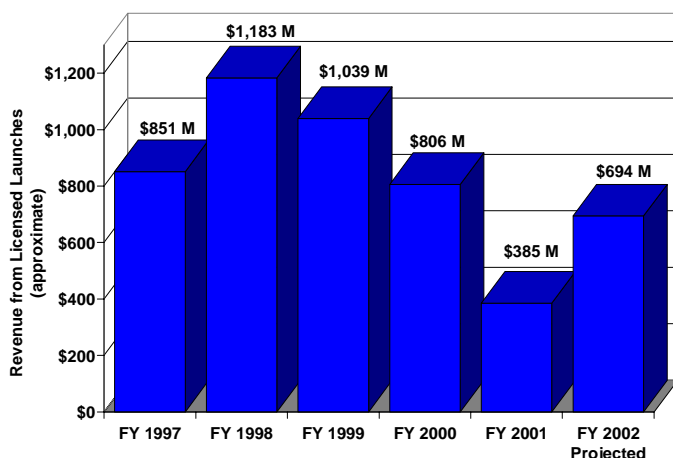
- Two launches of commercial payloads on U.S commercial launch vehicles, worth \$116.5 M
- One launch of a U.S. Government payload on a U.S. commercial launch vehicle, worth \$13.5 M
- Three flights of commercial payloads by the multinational Sea Launch launch service provider, worth \$255 M

This launch count represents a decrease of 50 percent from FY2000 (12 launches) and a 66 percent drop from FY1999 (18 launches), and reflects a significant drop in commercial non-geosynchronous (NGSO) launches overall due to decreasing demand among NGSO telecommunication providers. The FY2002 projected increase in the number of commercial launches and launch revenue is due (see charts below), in part, to announced commercial launch contracts using the new Atlas 5 and Delta 4 launch vehicles, both of which are planned for introduction in FY2002.

FAA-Licensed Commercial Orbital Launch Trend



U.S. Commercial Orbital Launch Revenue Trend

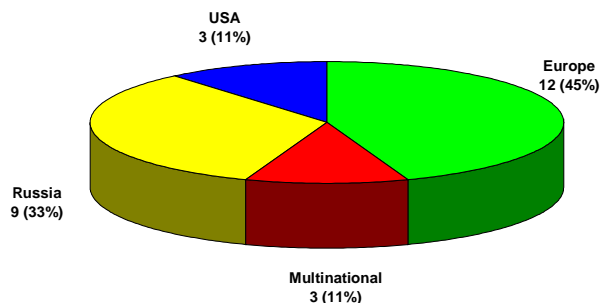


FIVE-YEAR LAUNCH TRENDS WORLDWIDE





During the FY1997-FY2001 period, there was an average of 20 GEO commercial launches per year with a low of 18 in both FY2000 and FY2001 and a high of 23 in FY1999. There was an average of 14 NGSO launches per fiscal year during the same five-year period. There was a low of 9 NGSO launches in both FY1997 and FY2001 and a high of 22 in FY1998.

Twenty-seven commercial launches occurred in FY2001, lower than the average of 36 launches per fiscal year during the five-year period. Russian vehicles made an increasing number of commercial flights, from four in FY1997 to a high of 12 in FY1999. Europe has conducted an average of ten launches per fiscal year since FY1997. Sea Launch conducted three launches in FY2001, and is planning to launch up to six during calendar year 2002.

Worldwide Distribution of Commercial Launches in FY2001



FAA-Licensed Vehicles Launched in FY 2001

	United States			Multi-national
Vehicle				
FY 2001 Total Launches	1	1	5	3
Licensed Launches	1	1	1	3
Reliability 2001	1/1	0/1	5/5	3/3
	100%	0%	100%	100%
Last 10 Years	27/30	5/6	53/56	7/8
	90%	83.3%	95%	88%
LEO (lb.)	1,015	1,380	19,050	35,000
GTO (lb.)	--	448	8,200	11,050

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WORLDWIDE COMMERCIAL LAUNCH EVENTS IN FY2002

Date	Vehicle	Site	Payload(s)	Operator	Manufacturer	Use	Comml Price	L	M
United States									
10/9/2000	✓ Pegasus XL	Kwajalein	HETE 2	Massachusetts Inst. Of Technology	MIT	Scientific	\$12-15 M	S	S
6/19/2001	✓ Atlas 2AS	CCAFS	* ICO F-1	New ICO	Boeing	Communications	\$90-105 M	S	S
9/21/2001	✓ Taurus 1	VAFB	* OrbView 4	ORBIMAGE	Orbital Sciences Corp.	Remote Sensing	\$18-20 M	F	F
			QuikTOMS	Goddard Space Flight Center (NASA)	Orbital Sciences Corp.	Scientific		F	F
			* Celestis 4	Celestis, Inc.	Celestis, Inc.	Other		F	F
Europe									
10/6/2000	Ariane 42L	Kourou	* Nsat 110	JSAT/SCC	Lockheed Martin	Communications	\$80-100 M	S	S
10/29/2000	Ariane 44LP	Kourou	* Europe Star 1	Europe Star	Alcatel Espace	Communications	\$90-110 M	S	S
11/15/2000	Ariane 5G	Kourou	* PAS 1R	Amateur Sat. Organization (AMSAT)	Amateur Radio Sat. Corp.	Communications	\$150-180 M	S	S
			AMSAT Phase 3-D	PanAmSat	Hughes	Communications			
			STRV 1C	British Defense Ministry	Defense Research Agency	Development			
			STRV 1D	British Defense Ministry	Defense Research Agency	Development			
11/21/2000	Ariane 44L	Kourou	* Anik F1	Telesat Canada	Hughes	Communications	\$100-125 M	S	S
12/19/2000	Ariane 5G	Kourou	* Astra 2D	SES Astra	Hughes	Communications	\$150-180 M	S	S
			* GE 8	GE Americom	Lockheed Martin	Communications			
			LDREX	NASDA, Rocket Sys. Corp.	Toshiba	Development			
1/10/2001	Ariane 44P	Kourou	* Eurasiasat 1	Eurasiasat SM	Alcatel Espace	Communications	\$80-100 M	S	S
2/7/2001	Ariane 44L	Kourou	Sicral 1	Italian Ministry of Defense	Alenia Spazio	Communications	\$100-125 M	S	S
			Skynet 4F	British Defense Ministry	Matra Marconi Space	Communications			
3/8/2001	Ariane 42L	Kourou	* BSat 2A	Broadcasting Sat. Sys. Corp. (BSAT)	Orbital Sciences Corp.	Communications	\$80-100 M	S	S
			* EUROBIRD	Eutelsat	Alcatel Espace	Communications			
6/9/2001	Ariane 44L	Kourou	* Intelsat 901	Intelsat	Space Systems/Loral	Communications	\$100-125 M	S	S
7/12/2001	Ariane 5G	Kourou	ARTEMIS	European Space Agency (ESA)	Alenia Spazio	Communications	\$150-180 M	F	S
			* BSat 2B	Broadcasting Sat. Sys. Corp. (BSAT)	Orbital Sciences Corp.	Communications			
8/30/2001	Ariane 44L	Kourou	* Intelsat 902	Intelsat	Space Systems/Loral	Communications	\$100-125 M	S	S
9/25/2001	Ariane 44P	Kourou	* Atlantic Bird 2	Eutelsat	Alcatel Espace	Communications	\$80-100 M	S	S
Russia									
10/1/2000	Proton	Baikonur	* GE 1A	GE Americom	Lockheed Martin	Communications	\$75-95 M	S	S
10/15/2000	Soyuz	Baikonur	* Progress M1-3	MirCorp	RKK Energia	Crewed	\$35-40 M	S	S
10/21/2000	Proton	Baikonur	* GE 6	GE Americom	Lockheed Martin	Communications	\$75-95 M	S	S
11/21/2000	Cosmos	Plesetsk	* QuickBird 1	Digital Globe	Ball Aerospace	Remote Sensing	\$12-14 M	F	F
11/30/2000	Proton	Baikonur	* Sirius Radio 3	Sirius Satellite Radio Inc.	Space Systems/Loral	Communications	\$75-95 M	S	S
12/5/2000	START 1	Svobodny	* EROS A1	ImageSat	Israel Aircraft Industries	Remote Sensing	\$5-10 M	S	S
2/20/2001	START 1	Svobodny	Odin	Swedish National Space Board	Swedish Space Corp.	Scientific	\$5-10 M	S	S
5/15/2001	Proton	Baikonur	* PAS 10	PanAmSat	Boeing	Communications	\$75-95 M	S	S
6/16/2001	Proton	Baikonur	* Astra 2C	SES Astra	Boeing	Communications	\$75-95 M	S	S
Multi-national									
10/21/2000	✓ Zenit 3SL	Odyssey	* Thuraya 1	Thuraya Sat. Comm. Company	Hughes	Communications	\$75-95 M	S	S
3/18/2001	✓ Zenit 3SL	Odyssey	* XM Rock	XM Satellite Radio, Inc.	Boeing	Communications	\$75-95 M	S	S
5/8/2001	✓ Zenit 3SL	Odyssey	* XM Roll	XM Satellite Radio, Inc.	Boeing	Communications	\$75-95 M	S	S

* Denotes a commercial payload, defined as a spacecraft which serves a commercial function or is operated by a commercial entity.

✓ Denotes a commercial launch licensed by the Federal Aviation Administration Associate Administrator for Commercial Space Transportation (FAA/AST).